REMARKS

In the Office Action, claims 1-3, 13-14, 17-21 and 29 were rejected under 35 U.S.C. § 103(a) as being obvious from VanBuskirk et al. (U.S. Patent No. 6,075,534; hereinafter VanBuskirk) in view of Tannenbaum (U.S. Patent No. 6,233,560; hereinafter Tannenbaum) and Rozak et al. (U.S. Patent No. 5,864,815; hereinafter Rozak). Claims 4-16, 20, 22-28 and 30-33 were rejected under 35 U.S.C. § 103(a) as being obvious from VanBuskirk, Tannenbaum and Rozak in view of French-St. George et al. (U.S. Patent No. 6,018,711; hereinafter French-St. George).

VanBuskirk describes a volume tracking window for a speech recognition system. Under VanBuskirk, the current detected volume of a speech signal is represented in the window by changing the color of the entire window or by moving a colored bar horizontally to show the current volume. The volume tracking window in VanBuskirk may be a "floating window". However, VanBuskirk does not show or suggest that the volume tracking window should be placed near an insertion marker. In addition, VanBuskirk does not show or suggest a progress meter that shows the amount of progress in decoding an input speech signal.

French-St. George discloses an animation that indicates the amount of time the user has left in which to provide speech input to a speech recognizer. French-St. George does not suggest that this animation should be placed near an insertion point and does not show or suggest a progress meter that indicates the amount of progress in decoding an input speech segment.

Tannenbaum discloses a speech recognition interface in which fully recognized phrases or commands are displayed in a box. Under Tannenbaum, the box is located either near where the user is currently focusing their attention or where the execution of the command is expected to take place. Tannenbaum does not

disclose displaying a progress meter that indicates the amount of progress in the speech recognition.

Rozak discloses a graphical notification that indicates a processing state of a voice recognizer for a computer system. The graphical notification provides an icon showing whether the voice recognizer is currently processing audio inputs. However, Rozak does not teach or suggest a progress meter that quantitatively indicates the amount of progress in decoding a speech input.

Claims 1-16

Independent claim 1 of the present application is directed toward a method of displaying images on a display device. The method includes displaying an insertion marker at an insertion area on a display and displaying a progress meter near the insertion area based on the location of the insertion marker. The progress meter quantitatively indicates the amount of progress in decoding a speech input.

As amended, claim 1 is patentably distinct from the combination of VanBuskirk, Tannenbaum and Rozak, because the combination does not show a progress meter that quantitatively indicates the amount of progress in decoding speech inputs. Neither VanBuskirk nor Tannenbaum provide a progress meter that shows the amount of progress in decoding an input signal. Instead, both of these references display decoded words after decoding is complete. Although Rozak discloses a graphical notification that shows a processing state of a voice recognizer, the graphical notification fails to indicate the amount of progress in decoding a speech input quantitatively.

In Rozak, the graphical notification displays various icons in order to indicate different processing states of the voice recognizer. After a user enters an audio input, the graphical notification shows an egg-timer shaped icon to indicate

that the voice recognizer is currently processing the audio input (see FIG. 8 and column 5, lines 44-50). Rozak does not teach or suggest that the icon is capable of indicating the amount of decoding progress quantitatively. In other words, Rozak does not show a meter that gives the user an idea of how much of the speech has been decoded. The icon only serves as a symbol to say that the voice recognizer began working.

Since none of the cited references shows a quantitative progress meter, the combination of these references does not show the invention of claim 1. As such, claim 1 and claims 2-16, which depend therefrom, are patentable over the cited art.

Note that the invention of claim 1 provides an advantage over the systems disclosed in VanBuskirk, Tannenbaum and Rozak. In particular, since the invention of claim 1 provides progress information, the user is better able to determine whether the recognition program has "frozen" or become "hung-up."

Claims 9-11

Claims 9-11 are additionally patentable over the combination of VanBuskirk, Tannenbaum, Rozak and French-St. George. Claim 9 includes a limitation wherein a maximum height ratio for a base rectangle is subtracted from a transform ratio to produce an excess ratio. This excess ratio is then used to determine a height for a second rectangle to be displayed. Such steps are not shown or suggested in any of the cited art. As such, claims 9-11 are additionally patentable over the cited art.

Claims 13-16

Claims 13-16 are also additionally patentable over the combination of VanBuskirk, Tannenbaum, Rozak and French-St. George. Claims 13 and 15 include an additional limitation wherein the progress meter is displayed by dividing the frame number of the last frame to be decoded by the total number of frames to produce a decode ratio.

None of the cited references show or suggest displaying a progress meter by determining a decode ratio as found in claims 13 and 15. In rejecting claims 13 and 15, the passage at col.5 lines 48-50 of Rozak was cited. However, this section does not discuss a decode ratio. Instead, it merely suggests that an icon can be shown to indicate that the voice recognizer began processing the audio input. There is no mention of a decode ratio in Rozak.

Since none of the cited references show the formation of a decode ratio as found in claims 13 and 15, claims 13-16 are additionally patentable over the cited art.

Claims 17-20

Claim 17 is directed toward a computer program having at least one insertion point marker that indicates the location on the display where a user desires to provide input. The computer program also includes a speech recognition routine and a meter generation routine that displays a progress meter near the insertion point based on the insertion point marker. The progress meter is quantitatively indicative of the amount of a speech signal that has been decoded by the speech recognition routine.

Like claim 1, claim 17 is not shown or suggested by the combination of VanBuskirk, Tannenbaum and Rozak. In particular, none of those references shows a progress meter that indicates the amount of a speech signal that has been decoded, quantitatively.

Since none of the cited references shows or suggests a progress meter that quantitatively indicates the amount of a speech signal that has been decoded, their combination does not show or suggest the invention of claim 17. As such, claim 17 and claims 18-20, which depend therefrom, are patentable over the combination of the cited art.

Claims 21-28 and 29-33

Independent claims 21 and 29 are directed toward a method and a computer program, respectively, that display a volume meter and a progress meter in proximity to each other. The volume meter indicates the volume of a speech signal and the progress meter quantitatively indicates the amount of progress of a speech recognition system in decoding the speech signal.

As noted above, none of VanBuskirk, Tannenbaum, Rozak and French-St. George shows or suggests a progress meter that indicates the amount of progress in decoding a speech signal quantitatively. As such, the combination of these references cannot show such a progress meter that is displayed near a volume meter and therefore cannot render claims 21-33 obvious.
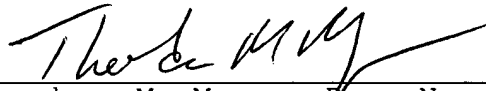
Conclusion

Applicants also note that the rejection of claims 4-16, 22-28 and 30-33 currently involves the combination of four different references. The large number of references provide evidence of the non-obviousness of these claims. Given the lack of specific suggestions to combine these references, a person skilled in the art is not likely to pick up the four cited references from the universe of knowledge in this particular area and combine them together.

In light of the above remarks, claims 1-33 are patentably distinct from the cited art. Reconsideration and allowance of claims 1-33 is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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MARKED-UP VERSION OF REPLACEMENT CLAIMS

1.(Thrice Amended)   A method in a computer system for generating images on a display device, the method comprising:

> displaying an insertion marker at an insertion area on a display, the insertion area representing the location at which the user desires to provide input; and
>
> displaying a progress meter near the insertion area based on the location of the insertion marker, the progress meter quantitatively indicative of the amount of progress in decoding a speech input.

21.(Amended)   A method in a computer system for generating images on a display device, the method comprising:

> receiving a speech input signal that is indicative of human speech;
>
> displaying a volume meter that is indicative of the magnitude of at least a portion of the speech input signal; and
>
> displaying a progress meter close to the volume meter on the display so that a user can perceive both the progress meter and the volume meter without substantially moving their eyes, the progress meter quantitatively indicating the amount of progress of a speech recognition system in decoding the speech input signal.

29.(Amended)   A computer program designed to operate in a computer system having a display, the computer program comprising:

a volume meter portion capable of displaying a volume
meter on the display that is indicative of the
volume of a human speech signal;

a speech recognition portion that is capable of
converting the human speech signal into a set of
sub-words; and

a progress meter portion capable of displaying a
progress meter on the display proximate the volume
meter, the progress meter being quantitatively
indicative of the amount of progress of the speech
recognition portion in converting the human speech
signal.